# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION

RC-29

Effective October 1, 2010 Revised August 1, 2011

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC). This product shall be subject to reevaluation July 2015.

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Metal Roofing Tile, Shake, Canyon Shake, Barrel Vault and NB Tile manufactured by

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will be accepted for use in areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

#### PRODUCT DESCRIPTION

The stone coated formed metal panels are fabricated from 26 gauge (0.0195 inch thick) coated steel. The metal roof panels measure as follows:

Product	Panel Length (inches)	Panel Width (inches)
Tile	45 ¾	15 ½
Shake	44 3/4	15 ½
Canyon Shake	45	16 ½
Barrel Vault	43 ¾	15 ½
NB Tile	46	16

#### **LIMITATIONS**

Design Wind Pressure: The design pressure is specified in each assembly installation.

Roof Slope: Gerard steel roofing panels and shakes can be installed on roofs with slopes ranging from 3:12 to vertical.

#### INSTALLATION INSTRUCTIONS

**General Installation Requirements:** All International Residential Code (IRC) and the International Building Code (IBC) requirements must be satisfied and manufacturer's installation instructions followed, unless otherwise specified by this product evaluation.

#### Installation:

**Roof deck:** Minimum  $\frac{15}{32}$  inch thick plywood sheathing.

**Base Sheet:** A minimum of one layer of No. 30 underlayment (ASTM D226, Type II) or two layers of No.15 underlayment (ASTM D226, Type 1) with 6" laps shall be nailed to the roof deck in accordance with the IRC and the IBC.

**Panels:** The metal panels are installed on nominal 2x2 inch wood battens ripped from standard grade lumber or better. The battens shall be placed over the underlayment and spaced as follows:

Product	Batten Spacing (inches)
Tile	14 ¾
Shake	14 ½
Canyon Shake	13 7/8
Barrel Vault	14
NB Tile	14 1/4

The battens are attached to each rafter as noted in the assemblies outlined below. The fasteners are installed horizontally, through the nose of the steel panels, into the side of the battens. The panels have a 1" overlap along the tile end and a 2" overlap at the tile side to allow the tiles to interlock with the adjacent tiles.

# Assembly No. 1:

## Design Wind Pressure: -45 psf

The battens shall be installed over the underlayment and spaced as noted above. The battens are fastened to each rafter with one (1) 0.131" shank diameter x 3  $\frac{1}{2}$ " long nail. Each metal panel is fastened to the 2x2 wood batten with either four (4) 8d x 2  $\frac{3}{8}$ " long corrosion resistant ring shank nails or four (4) #10 x 2 inch long corrosion resistant screws.

## Assembly No. 2:

# Design Wind Pressure: -75 psf

The battens shall be installed over the underlayment and spaced as noted above. The battens are fastened to each rafter with one (1) #8 x 3" long corrosion resistant screws. Each metal panel is fastened to the 2x2 wood batten with either four (4) 8d x 2  $\frac{3}{8}$ " long corrosion resistant ring shank nails or four (4) #10 x 2 inch long corrosion resistant screws.

# Assembly No. 3:

# Design Wind Pressure: -150 psf

The battens shall be installed over the underlayment and spaced as noted above. The battens are fastened to each rafter with two (2) #8 x 3 inch long corrosion resistant screws. Each metal panel is fastened to the 2x2 wood batten with either seven (7) 8d x  $2\frac{3}{8}$  "long corrosion resistant ring shank nails or seven (7) #10 x 2 inch long corrosion resistant screws.

**Note**: The manufacturer's installation instructions shall be on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC); the International Building Code (IBC); and the Texas Revisions.